Findings and Recommendations:

HEALTH AND SAFETY ISSUES

10. The use of x-ray equipment does not conform to District regulations and NAME recommendations, and employees are endangered.

The OCME autopsy staff conducts x-rays of decedents on a daily basis.[13] NAME recommends that all medical examiner offices have written policies and procedures for x-ray equipment and services. These policies and procedures should require that:

- the equipment is used only by trained and qualified individuals, preferably with certification;
- the medical examiner's office have a written schedule of exposures[14] on hand to ensure proper x-ray film exposures;
- x-rays are properly and securely filed; and
- that x-ray development equipment and reagents[15] are routinely maintained according to a set schedule.

Best practices in surrounding jurisdictions also require that all employees using x-ray equipment wear monitors and that their radiation exposure be measured on a monthly or quarterly basis.

Prior to the commencement of the inspection, the IG requested that the CME provide all written x-ray policies and procedures; however, none were provided.

a. OCME does not properly monitor employee radiation exposures.

The team requested monthly or quarterly reports for radiation exposure badges worn by OCME employees. The badges are to be sent to a monitoring company each month to be read for radiation exposure. OCME employees stated they have not received an accounting of their radiation exposure during their tenure with OCME. OCME could only provide monitoring reports for calendar year 1999, and these reports show that OCME failed to send 99% of the badges to the monitoring company for evaluation. OCME employees stated they do not know how much exposure to use when taking x-rays, nor are they aware of the levels of radiation to which they have been exposed.

b. OCME employees are not properly trained or certified to operate x-ray equipment.

The team found that OCME autopsy technicians taking x-rays daily have not been trained. Employees stated that they requested x-ray training but have received none. They also stated that they have received on-the-job training from fellow employees, and are responsible for training new employees.

[13] The District's Office of Documents and Administrative Issuances has informed the OIG that this provision is awaiting recodification to 22 DCMR § 6803.10.
[14] *Schedules of exposures* inform a radiologist or technician about the specific amount of radiation to use for specific needs.
[15] *Reagents* are chemicals used to develop x-rays.

c. X-ray equipment has never been inspected.

NAME recommends that in-house x-ray equipment be assessed periodically for performance improvement, radiation protection, radiographic beam collimation,[16] and biomedical safety. In addition, 20 DCMR § 2103.10 (1984), provides that "[e]ach radiation device used in the District shall be retested at no longer than six (6) month intervals or at intervals not to exceed three (3) years as is specified in the label required by this section."

The team requested x-ray equipment maintenance records and found the equipment has never been inspected. The team also found that the vests used for protection during x-rays, are old, torn, and leaking threads and fibers.

The lack of monitoring, training, and written policies and procedures puts the health and safety of OCME employees at risk for radiation exposure. Without periodic equipment inspections, the CME cannot ensure that all equipment is operating properly. A Management Alert Report (MAR 03-I-005, Appendix 5) was provided to the CME addressing these issues. A copy of the CME's response to the MAR is at Appendix 6.

d. OCME does not properly store and secure x-rays.

There are no written policies and procedures for the handling and storage of x-ray results.[17] Most are maintained in an unlocked room with no staff present. They are not carefully accounted for and are sometimes lost or misplaced. The team found copies of x-ray results throughout the OCME facility that appeared to be haphazardly mixed with other documents. When copies of x-ray results are misplaced, autopsy technicians must x-ray bodies again, sometimes after the bodies have decomposed. This makes the procedure more difficult, and increases the amount of exposure of technicians to radiation.

CME's comments regarding Page 47, Line 32, as received:

Monitoring reports for 2000-2003 were recently obtained from the company that performs this service; over 60 pages of reports are now on file at OCME, and copies are appended to my formal response to this draft report.

CME's comments regarding Page 47, Line 38, as received:

In addition, the mortuary supervisor has contacted the relevant inspector from DOH. The OCME X-ray machine has been registered with DOH, and the inspector will inspect the equipment soon, and regularly thereafter.

[16] The direction of the x-ray beam.
[17] X-rays are used for identification purposes, viewing of wounds, bullet fragments, etc.

11. <u>Stretchers and carts used to move bodies are old, rusted, and dangerous</u>.

NAME recommends that all stretchers and carts used to move bodies be sturdy, in good repair, and free of sharp edges. The team found that carts used in OCME pose a health and safety hazard to employees. They are over 20 years old, rusted, unstable, with broken parts and sharp edges, wheels that do not roll freely, and brakes that do not work properly. The carts tip over frequently causing bodies to fall off and resulting in injuries to employees. The team also noted that due to the condition of the carts, they cannot be cleaned properly, and body fluids were present in the fibers of the fiberglass tops.

At the time of this writing, the mortuary supervisor stated that new carts were on back order, but problems in the procurement process have delayed their delivery.

Recommendation:

That the CME take steps to expedite the replacement of old and malfunctioning body carts.

Agree **X** Disagree _____

CME's comments regarding Page 49, Line 7, as received:

Falling bodies and injured employees are not frequent occurrences.

CME's comments regarding Recommendation as received:

This was done. The carts have been delivered.

12. <u>OCME does not have written policies and procedures or training for the disposal of biohazardous waste</u>.

OCME staff disposes of hazardous and biological waste, including body fluids and tissue, on a periodic basis. OSHA requires that employers ensure that all policies and procedures, both OSHA mandated and employer instituted, which are applicable to regulated waste, are followed by employees. Additionally, NAME recommends that all affected employees be properly trained in the disposal of biohazardous waste. However, OCME has no written policies and procedures for the disposal of biohazardous waste and employees stated that they have not received training in the proper disposal of such waste.

Recommendation:

That the CME provide OCME employees with training and written policies and procedures for the proper disposal of biohazardous waste.

Agree **X** Disagree _____

13. <u>Employees are not trained to avoid biohazardous contamination associated with body handling and transport</u>.

NAME recommends that employees who transport and handle bodies be trained in identifying biohazardous conditions and the steps to take for self-protection. OCME has no policies and procedures, or training so that autopsy assistants can avoid biohazardous contamination. Employees stated that they have transported bodies that are grossly decomposed, afloat in fluids and covered with maggots, and some that had tested positive for tuberculosis, HIV, meningitis, and hepatitis. They have also transported bodies that had been exposed to anthrax. Some employees stated that they believe they have developed allergies and asthma due to exposure to hazardous conditions experienced while transporting bodies.

Recommendation:

That the CME establish written policies and procedures and provide training and protective equipment to body transport employees to prevent biohazardous contamination.

Agree **X** Disagree _____

CME's comments regarding Recommendation as received:

Agreed as to policies and training; protective equipment has been supplied.

CME's comments regarding Page 50, Line 9, as received:

Actually, this is a routine, required part of the job, not some undue exposure.

CME's comments regarding Page 50, Line 11, as received:

They may believe this, but these claims are baseless, and medically unreasonable. If you publicly report these as such, you will legitimize them.

14. <u>OCME does not have a written hazardous communication program as required by federal law</u>.

Title 29 CFR § 1910.1200(e)(1) (LEXIS through July 23, 2003) *Written Hazard Communication Program* states that "[e]mployers shall develop, implement, and maintain at each work place, a written hazardous communication program.... " *Id.*

The team determined that OCME lacks a written communication program for employees working with and in the proximity of hazardous chemicals. Such a program should include container labeling, material safety data sheets,[18] employee training and information, and an inventory of hazardous chemicals. In addition, OSHA mandates that employers conduct hazardous communication training for all employees. OCME employees stated that they have

[18] Material safety data sheets contain information regarding hazardous materials.

not received training in the proper handling of hazardous chemicals, and that there is no written hazardous communication program in place. The lack of a program plan as required by federal law may jeopardize the health and safety of OCME employees.

Recommendation:

That the CME oversee completion and implementation of a written hazardous communication program as required by 29 CFR § 1910.1200(e)(1) (LEXIS through July 23, 2003).

Agree **X** Disagree _____

15. <u>The autopsy suite tissue storage areas are not properly ventilated</u>.

NAME recommends that tissue storage areas be ventilated and free of formaldehyde or putrefied tissue odors. The team visited surrounding jurisdictions and found that tissue storage areas were well-ventilated, with sufficient filtration systems.

The tissue storage area at OCME, however, is not well-ventilated. During a period when dissections were in progress, the team smelled formaldehyde and putrefied tissue odors. The ventilation duct was uncovered and employees stated that the ventilation system does not adequately pull air from the dissection room. Employees also state that during dissections, the odor is almost unbearable and makes them sick.

Recommendation:

That the CME have the ventilation system in the autopsy suite tissue storage areas inspected and upgraded as required.

Agree **X** Disagree _____

CME's comments regarding Recommendation as received:

Agree to monitor and inspect. However, I do not agree that this room is not properly ventilated. Measurements were taken by DOH and subsequently by the OCME Chief Toxicologist (who is also the ARMR), and no excessive levels of chemicals were detected.

16. <u>Handling of personal protective equipment (PPE) is unsafe</u>.

OCME autopsy technicians and MLIs wear personal protective equipment (PPE) when conducting on-site death scene investigations and when transporting bodies. These employees are exposed to body fluids when carrying out these duties.

OSHA states that it is the responsibility of the employer to provide, repair, replace, clean, and dispose of an employee's PPE. OHSA requires PPE be removed daily prior to employees' departure from the work area. Employees are not permitted to take PPE home to launder. Contaminated laundry should be handled as little as possible with a minimum of agitation,

bagged or containerized where it was used, and should not be sorted or rinsed at the point of use. Maryland and Virginia provide laundry facilities for employees' PPE.

OSHA also states that when an organization sends contaminated laundry off-site to a cleaning facility which does not utilize Universal Precautions[19] in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded indicating their contents.

OCME contracts with a private firm for the cleaning of gowns used in the autopsy suite, but does not provide laundry facilities for autopsy technicians' and MLIs' PPE. The team found that autopsy technicians and MLIs are not removing and bagging their PPE prior to leaving their work areas. The team also found that employees often take their PPE to public laundromats or private cleaners without informing those establishments of potential contamination.

The failure of OCME to provide laundry facilities or contract laundry services for all PPE, and allowing employees to remove PPE from OCME, may place the health and safety of the employees, their families, and the general public at risk.

Recommendations:

a. That the CME immediately forbid removal of PPE from the OCME facility.

Agree **X** Disagree _____

b. That the CME provide on-site or contract for laundry services for PPE.

Agree **X** Disagree _____

CME's comments regarding Recommendation (b.) as received:

Since the inspection, OCME has contracted with a laundry service for providing scrub suits.

OIG Response: **We recommend that the CME ensure that the PPEs used by mortuary technicians are included in the laundry service.**

[19] *Universal Precautions* is a Center for Disease Control (CDC) term which refers to infection control measures that all health care workers should follow with the goal of protecting themselves from disease-producing microorganisms. The practice requires workers to treat all blood and various other body fluids as if infected with HIV, hepatitis B virus, and other blood-borne pathogens.

17. <u>Mortuary employees do not have adequate shower facilities for removing body fluids and contaminants</u>.

NAME recommends that all medical examiner offices have separate changing areas and shower facilities for male and female employees. The team toured medical examiner offices in Maryland and Virginia and found they have shower facilities that are clean and well-maintained.

However, the team found that OCME does not have clean working showers for either male or female autopsy employees. There were broken tiles and unsanitary conditions in both facilities. Employees stated that the shower facilities were not renovated, and are not cleaned on a regular basis. They do not feel safe using the facilities and do not shower prior to leaving OCME. The lack of working shower facilities means that employees cannot thoroughly remove body fluids or contaminants prior to leaving OCME, and may expose the public to such contaminants after they leave the facility.

Recommendation:

That the CME have the shower facilities repaired and ensure that they are cleaned and disinfected daily.

Agree **X** Disagree _____

18. <u>Odors from autopsy suite permeate public access areas</u>.

NAME recommends that all public access areas be comfortable, clean, and free from odor. The team visited surrounding jurisdictions and found that Maryland and Virginia have periodic testing of their ventilation systems.

The team found that the elevator used by OCME staff and visitors has an unpleasant odor that seems to emanate from the autopsy suite and/or the body cooler area. The IG sent a Management Alert Report (MAR 03-I-003, Appendix 7) to the CME citing this problem and asking to be notified of corrective actions taken. The IG also recommended that the CME request an inspection of the OCME facility by the D.C. OSH. A copy of the CME's response to the MAR is at Appendix 8. The team will follow-up on the CME's progress in correcting the problems cited in the MAR.

CME's comments regarding Page 53, Line 33, as received:

Progress has been made and continues to occur with facilities maintenance and ventilation, especially under the guidance of the OCME Chief of Staff, Ms. Denicourt. Odors in the elevators and public areas are largely abated now.